

Compact, Rugged and Low-Cost Atmospheric Ozone DIAL Transmitter, Phase I

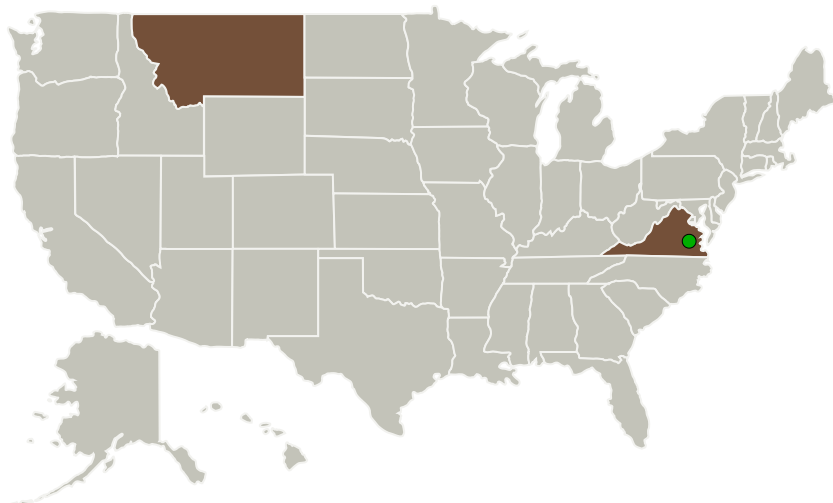
Completed Technology Project (2015 - 2015)



Project Introduction

Bridger Photonics Inc. (Bridger) proposes developing the most efficient, compact, rugged, low-power consumption and cost-effective UV ozone differential absorption lidar (DIAL) transmitter available. Bridger will demonstrate pulse energies above 0.5 mJ with a goal of 1 mJ/pulse with a pulse repetition frequency of 1 kHz. The proposed transmitter will enable widespread deployment of ozone DIAL systems capable of continuous range-resolved atmospheric ozone measurements from ground-based and airborne platforms to advance NASA's Earth science mission.

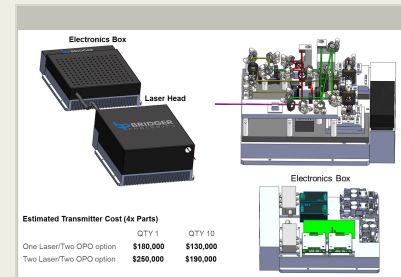
Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Bridger Photonics, Inc.	Lead Organization	Industry	Bozeman, Montana
● Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia

Primary U.S. Work Locations

Montana	Virginia
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Project Transitions

June 2015: Project Start

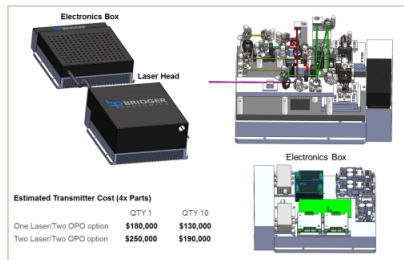
December 2015: Closed out

Closeout Summary: Compact, Rugged and Low-Cost Atmospheric Ozone DIAL Transmitter, Phase I Project Image

Closeout Documentation:

- Final Summary Chart Image(<https://techport.nasa.gov/file/139909>)

Images



Briefing Chart Image

Compact, Rugged and Low-Cost Atmospheric Ozone DIAL Transmitter, Phase I

(<https://techport.nasa.gov/image/136722>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Bridger Photonics, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

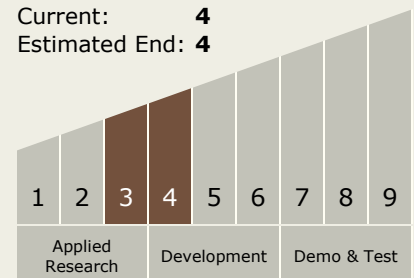
Carlos Torrez

Principal Investigator:

Jason Brasseur

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **4**



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Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.2 Observatories
 - └ TX08.2.2 Structures and Antennas

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System